DOCUMENT RESUME

ED 283 944 CE 047 381

TITLE	Preparing Teacher/Coordinators to Conduct Cooperative Work Experience Education.
INSTITUTION	National Child Labor Committee, New York, N.Y.
SPONS AGENCY	Atlantic Richfield Foundation, New York, NY.; Edna McConnell Clark Foundation, New York, N.Y.; Mott (C.S.) Foundation, Flint, Mich.
PUB DATE	86
NOTE	99p.
AVAILABLE FROM	National Child Labor Committee, 1501 Broadway, Suite 1111, New York, NY 10036 ($4.00; 10 or more--20 percent discount).
PUB TYPE	Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	*College Programs; *Cooperative Education; Course Content; Course Organization; Educational Needs; Experiential Learning; Field Experience Programs; Higher Education; High Schools; Job Training; *Preservice Teacher Education; Program Improvement; School Business Relationship; Teacher Role; *Work Experience Programs

ABSTRACT

The National Child Labor Committee (NCLC), having as its goal the improvement and increased utilization of Cooperative Work Experience Education (CWEE), conducted several studies to identify areas in which improvement is desirable and attainable. Based on information collected and knowledge of job demands, nine changes to preparation of teacher/cordinators are recommended. Part I describes a two-year study to determine how to improve and extend the use of cooperative education. Data for the study included: curriculums from 26 schools of education; descriptions of tasks performed by teacher/coordinators and estimates of relative importance of each task; contents of manuals and guides for conduct of cooperative education issued by 11 state departments of education and one Canadian provincial department; and findings and recommendations in studies and articles relative to teacher training. Part II outlines a curriculum that was developed. The curriculum contains a course sequence to prepare teacher/coordinators and an outline for each course. The six courses outlined include Introduction to CWEE, Administration of CWEE, Coordinating and Integrating Cooperative Education Activities, Improving Learning Opportunities at the Workplace, Cooperative Education for Special Student Populations, and Obtaining and Using Labor Market Information in Planning and Conducting Cooperative Education. Each course includes goals, objectives, content, teaching methods, and resources. The third part of this document is a syllabus for the introductory course in CWEE. It serves as an example of how the syllabus should be prepared for each of the courses in teacher/coordinator preparation. Appendixes include a bibliography, questionnaire to schools of education, key elements of CWEE, matrix of the key elements in college curricula, matrix of the importance of the elements, and elements for training teacher/coordinators. (KC)

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Preparing Teacher/Coordinators to Conduct Cooperative Work Experience Education

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The National Child Labor Committee (NCLC) was founded in 1904 and chartered by an Act of Congress in 1907 to combat the widespread exploitation of young children in the fields, mines, mills and sweatshops. The photographs of NCLC staff member Lewis Hine stand today as a reminder of both the Committee's historic past and the shame of child labor.

National needs changed through the middle part of this century: by the 1950s it was clear that child labor abuses had decreased dramatically, but many young people were growing up with no preparation for the adult world of work. Their lack of job skills and professional behavior patterns excluded many from the labor force, placing a terrible burden on them, their families and on the nation's social welfare systems. NCLC's current program evolved to help ease this difficult transition from school to work and to promote equal educational opportunities for all.

The National Child Labor Committee is the nation's only private, nonprofit, voluntary organization which devotes a full program to the critical problems of youth unemployment and to the related fields of child labor and the education of migrant farmworker's children.

NCLC creates and expands education, training and job opportunities for youth, thereby protecting our national investment in the future. Toward this end, NCLC performs a broad spectrum of services for community organizations, private and public agencies, corporations, and for young people themselves.

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Preparing Teacher/Coordinators to Conduct
Cooperative Work Experience Education

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PREFACE

The National Child Labor Committee has as a continuing goal the improvement and increased utilization of CWEE, which it believes must be a required ingredient in all programs for preparing high school graduates to enter the full-time labor market.

This study and the suggested "Curriculum for Teacher/Coordinators' Education," are presented in recognition of the role played by teacher/coordinators in the design and conduct of successful Cooperative Work Experience Education (CWEE).

In the first phase of NCLC activities directed toward its goal, it conducted several studies to identify areas in which improvement is desirable and attainable. The studies included:

- o review of the literature relating to CWEE at both secondary and post-secondary levels;
- o a field study of CWEE programs which were identified as outstanding by the U. S. Department of Education and state departments of education (twenty programs were visited);
- o conferences with members of six state departments of education responsible for providing services and assessing local CWEE;
- o interviews with more than thirty persons who have studied CWEE as monitors, consultants, university faculty or educational researchers;
- o questionnaire surveys which elicited information and opinions concerning CWEE from employers, unions, state departments of education and labor and industry organizations;
- o a questionnaire survey of schools of education which have programs to prepare teacher/coordinators and review of curriculum materials provided by respondents.

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The analysis and recommendations in "Part I" are based on these studies and in particular, the state education department responses relating to teacher/coordinator requirements and in-service training and the responses from the schools of education.

In all our studies, one factor stands out as the most necessary condition for effective Cooperative Work Experience Education: the activities of dedicated and competent teacher/coordinators. Consequently, we adopted as a major objective toward achieving our goal, for implementation and expansion of CWEE, improving the competence of teacher/coordinators and programs directed toward preparing them to perform their varied, difficult tasks.

Our needs analysis is based on review of several current task analyses of the job of the teacher/coordinator, our own field studies previously described, and review of our preliminary findings by a number of people in the field.

To determine how these needs are being met, we reviewed information provided in our early studies and conducted the previously described questionnaire surveys of the curriculums of schools of education and the minimum requirements and in-service training of state departments of education.

We found that the tasks for which there is greatest need for increased competence and which, there is general agreement, have the greatest impact on the effectiveness of CWEE, all have a common "boundary spanning" characteristic. That is, this group of tasks require teacher/coordinators to go outside of the classroom and frequently outside of the educational system to obtain active participation and cooperation from individuals, businesses and community organizations and to bring their needs, efforts, and contributions into alignment with those of CWEE.

There seems to be little in the previous education or work experiences of teacher/coordinators to prepare them to play this role. Further, the curriculums and training programs we reviewed contained little training and less education to prepare and improve their competence and confidence to play the boundary spanning role.

Most teacher/coordinators seem to be uncomfortable performing this role. One consequence is a tendency to try to make outside relationships less risky and less challenging by "creaming" the student population to insure employers' satisfaction and rarely making demands which might meet with some resistance. This observation applies not only for relationships with those outside of the educational system, but also with faculty members not directly involved in CWEE who are occassionally required to participate in remedial or special education activities to help students become more competent, more acceptable workers. Even when there are legal requirements, these are seen to be obstacles to overcome to keep employers.

This attitude is re-enforced by school administrators by the manner and criteria used to evaluate teacher/coordinators' performance and the value of cooperative education. The most common criteria employed are number of students placed, number of training slots retained, letters of employer's satisfaction and the number of hours teacher/coordinators spend on activities other than Cooperative Work Experience Education and particularly other than field work visiting worksites. The latter activity which is crucial for effective programs is regarded not as an educational activity but a boondoggle and an opportunity to "goof off."

This attitude is re-enforced by the paucity and nebulousness of educational emphasis in teacher/coordinators' preparation for field activities.

It is in response to this situation that we emphasize tasks relating to the boundary spanning role in the suggested curriculums. The rationale for the other areas of emphasis (or de-emphasize) are adequately explained in the text and need no special flagging.

We recommend seven courses although we know full well that there is a strong (some might say overpowering) movement to limit the number and importance of college courses devoted to "teaching." Some teachers who have had two or three years of appropriate business or industrial experience and one or two years of good teaching experience could become acceptable teacher/coordinators with one basic, comprehensive course followed by strong supervisory coaching. But, the level of teacher competence required for good, effective Cooperative Work Experience Education calls for all of the

knowledge and competencies which would be provided by education, training and coaching included in the seven course curriculum and spelled out in the syllabus for the introductory course.

Effective Cooperative Work Experience Education is labor intensive. Not only is it labor intensive but the returns are entirely dependent on the dedication and competence of the teacher/coordinator. If these are inadequate, students, communities and our society will pay a heavy price, far higher than the cost of improving the competence of teacher/coordinators. Consequently, if entry requirements and selection criteria are low, it is the responsibility of state and local educational officials to provide the necessary training; and competent supervision to insure that teacher/coordinators have the will and competence to play their demanding, important roles.

We thank the many people whose studies we used and who allowed us to interview them and responded to our questionnaires and telephone follow-ups. In particular, we thank Richard Campbell, of the Nebraska Department of Education, Marian Craft of the U.S. Department of Educaiton, Susan Siporin of the National Child Labor committee, and John Wanat of the New Jersey Department of Education, without whose encouragement, suggestions and comments we would not have completed this project. However, they are in no way responsible for our recommendations, especially since some voiced disagreement with a few elements.

Solomon Hoberman

Seymour Lesh

Summary of Recommendations

Based on the information we gathered* and our knowledge of job demands, we recommend that preparation of teacher/coordinators be changed by:

- increasing emphasis on competence to motivate and help employers expand and enrich learning on the job
- establishing courses or workshops to help teacher/coordinators provide effective cooperative education for students with special needs
- changing the focus of related class preparation to meeting the specific needs of the individual student and the individual employer
- increasing emphasis on the use of the employer's evaluation to design learning plans for the individual student
- introducing curriculum elements to provide continued support for students after graduation
- strengthening education relating to design and use of training plans
- increasing emphasis on developing and working with advisory committees
- focusing on helping teacher/coordinators conduct operational research rather than holistic evaluation
- reducing emphasis and time spent on training teacher/coordinators to develop and manage vocational student organizations

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*In addition to the information gathering activities described by the introduction, we were helped inestimately by the members of our Advisory Board and Consultant Network: Nancy Breckenridge, Richard Campbell, Marion Craft, Louis DeSalvo, Jack Humbert, Gary Lloyd, Goldada Mehrer, Margaret Mills, Michael Mitchell, Fred Monaco, Sharon Petersen, Margaret Snell, Donnalie Stratton, Mary Thompson, John Wanat and Carl Woloszyk.

- increasing emphasis on meeting the needs of special student populations being mainstreamed into CWEE (the gifted as well as disadvantaged, marginally learning disabled, and other special needs students)

- counseling individual students on personal and workplace relations

- introducing material to gain the support of community and other faculty members for CWEE

- providing continuing education by periodic courses and workshops in specialized areas and specified areas of need

- changing the educational approach to mandate the use of on-the-job experience for teacher/coordinators, making the cooperative work experience model the basis for training teacher/coordinators.

PART I : ANALYSIS AND GENERAL RECOMMENDATIONS

The National Child Labor Committee (NCLC) conducted a two-year study to determine how to improve and extend the use of cooperative education. One outcome was reaffirmation of the key role played by the teacher/coordinator and the importance of preparation to play the role. Consequently, we gathered information to learn how teacher/ coordinators are prepared and keep up-to-date in their learning.

Analysis

The data for the study included:

- o curriculums from 26 schools of education (40 requests were sent); (1)
- o descriptions of the tasks performed by teacher/coordinators and estimates of the relative importance of each task;
- o contents of manuals and guides for the conduct of cooperative education issued by eleven state departments of education and one Canadian provincial department; (2)
- o findings and recommendations in studies and articles relative to teacher training and the training of teacher/ coordinators in particular;

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(1) The form sent to the colleges is in Appendix A.

(2) Arizona, Florida, Kansas, Kentucky, Illinois, Michigan, Nebraska, New Jersey, Ohio, Texas, Virginia, and Ottawa.

(3) Appendix B is a list of the 49 key elements.

- our findings in the early study in which we identified 49 key elements (3) of cooperative education and developed estimates of their relative importance;

- views of educators involved in cooperative education at the teacher/coordinator, supervisor, and state levels.

In our analysis we:

- categorized and organized the 49 key elements into five functional areas; (4)

- assigned a numerical value to the emphasis given to each key element (5) in each course syllabus as an estimate of the importance of the element; (6)

- compared ratings for curriculum elements (key elements in our earlier study) and the frequency with which the element is included in task analysis and in state manuals; (7)

- compared educational approaches indicated in curriculums with recommendations in literature relating to teacher training and those of people we interviewed in our earlier study.

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(4) The five functional areas are: "Obtaining Support for the Program;" "Goal Setting;" "Planning and Administration;" "Employer Linkages;" "Relations and Cooperation;" "In-School Program Activities;" and "Follow-up."

(5) Five points if an element is the primary subject of a course; three points if it is one of four or fewer major subjects; and one point if it is mentioned as a sub-area.

(6) Appendix C is an analysis of the curricula in terms of the 49 key elements; Appendix D is a summary of the data and comparisons between NCLC importance and curriculum emphasis ratings.

(7) Appendix E is a summary of the data and analysis.

Our data base with respect to college curricula is limited and consequently our findings may not be reliable and valid descriptions of what exists. However, this would not negate our recommendations; they simply would be unnecessary for some schools. Some of the limitations of this study are:

- o curriculum data limited to replies from 26 institutions;
- o use of our typology as the basis for analysis;
- o possible error in identifying subject matter in curricula and tasks with our 49 elements;
- o arbitrary assignment of numerical values and categories as estimates of importance;
- o limited, unsystematic review of tasks, curricula, teacher training literature, and state manuals and guides; and
- o analysis limited to comparisons among indices which have not been shown to be commensurable.

Findings

With the caveats implied in these limitations, our findings are:

- o There is a generally positive relationship between the NCLC index of importance and the emphasis in college curricula in four of the five areas into which NCLC's key elements are grouped (8).
- o The most commonly reported tasks in the task analysis studies are included in the two top categories for both the NCLC study and college curricula.

(8) The groupings are given in Appendix B.

- The college curricula virtually ignore the functional area "Employer linkage, relations and cooperation." This includes elements and related activities directed toward improving learning opportunities at the workplace and, through feedback, in the classroom. It is considered the crucial educational area in the NCLC study.

- Two school-related elements, emphasized in the NCLC study, are ranked low in the curriculum analysis. These are "Preparing students for specific work assignments" and "Use of the performance evaluation by the teacher/coordinator." The latter seems to be limited, in both courses and state manuals, to determining students' grades.

- It is estimated that 10% of the entire public school population is classified as handicapped (9). Less than 1% of college applicants are so classified. Consequently, virtually all handicapped secondary school students should be prepared to make the transition from school to work. If we add to the handicapped others who do not go on to post-secondary education, such as the economically and educationally disadvantaged, there is an extraordinarily large number of young people who could benefit greatly from cooperative education.

Helping these students is not easy. Yet there is little training or information to help the teacher/coordinators. There should be special courses and workshops for teacher/coordinators and administrators. There are courses for Special Education Teachers to qualify as

(9) Educational Testing Service, "A Research Context for Studying Admissions Tests and Handicapped Populations," Princeton, New Jersey; 1984.

Vocational Transition Specialists. A program in colleges of the University of California to prepare Special Education Teachers as Vocational Transition Specialists indicates that the need for special training is recognized. Some Special Education Teachers are being trained to satisfy it. The CWEE part of this training is no better than that for teacher/coordinators.

There is a large number of students with handicaps and learning disabilities who are "mainstreamed" They present difficult problems for teacher/coordinators with respect to relations with the employer and the supervisor on the job, etc. As a consequence, these students tend to be the last to be placed, always after students who are the most "work ready" and frequently after students who are classified in the "special needs" category. While there is some training for working with "special needs" students, there is none for serving as a teacher/ coordinator with this population.

At the other end of the spectrum are students who are outstanding in terms of occupational skills and who need a demanding placement if work is to be a learning experience. None of the curricula or workshops indicated that teacher/coordinators are prepared to work with this population.

An important element identified in two of the task analyses is not included in either NCLC's 49 Key elements or the college curriculums. This is the teacher/coordinator counseling individual students on personal and workplace relations. New workers, particularly students, do not always relate readily to work situations and are frequently unable to make necessary personal adjustments. They need and can benefit from adult counseling. Teacher/coordinators who are positioned to provide the counseling are not trained or ready to provide counseling when it is needed.

Good working relations with other faculty members, e.g. academic and vocational classroom teachers and guidance counselors, are essential for design and conduct of effective CWEE. They are needed to raise and maintain the status of CWEE, recruit, assess, and assign students, provide remedial and support education, etc. No curriculum deals, to any extent, with this element.

While, in some programs, as many as half of the students obtain full time employment with the same employer after graduation, there are many students who need continued

help to make the transition to full time employment. Very few curriculums include anything on providing support, guidance, referrals, etc. for students after graduation. There is material in this area as well as on a number of exemplary programs which could be replicated. "Work fairs", arranged interviews with employment services and counseling on post-secondary vocational education are some approaches. There are some programs which use these for all students and some which reserve the extra effort for students with special needs.

Two elements which were emphasized in college curricula were performed poorly in the field. These are "advisory committees" and "training plans."

Teacher/coordinators are not prepared to conduct helpful operational research, e.g., identifying the concerns and expectations of students and parents.

Four elements are given significantly greater emphasis in curricula than in the NCLC study and the task analyses. These are "support by unions," "program evaluation," "participation in student occupational organizations" and "training plans."

Teacher/coordinators are not prepared to reach out to organizations and individuals who are concerned with the state of the local labor force and who could provide essential labor market information and support for cooperative education. These include economic development and employment service officials and trade organizations.

The curricula and task analyses emphasize "Related class instruction". However, curriculum content seems to be, for the most part, "off the shelf" material in "work readiness" and "life needs". It does not seem to be related to any specific situations a student might face in a specific job. Consequently, many students are poorly prepared to become acclimated and maximize learning on the job.

Elements evaluated as important by every measure are "Public relations," "Program administration," "Related class curriculum," and "Selecting and assigning students."

Most state manuals include the same elements. There has clearly been a great deal of interchange of materials. Almost the entire emphasis in the manuals is the area: "Goal setting, planning and administering the program." Virtually every element in this area is included. The key elements discussed in the area: "Obtaining support for the program" relate closely to administration. They

are: "Public relations", "Citizen advisory committee" and "Recruiting students". The only elements in the "Employer linkage, relations and cooperation" and "in-school program activities" areas are: "Relating-in-school and on-the-job learning," "Related class curriculum," "Training plan," and "Selecting and assigning students".

The instructional approaches and techniques described in the curriculums included lecture, case studies, assigned reading, role plays, seminar discussion, exercises and simulations. There is no indication of relating classroom instruction and actual work experience. Recent studies and reports emphasize the importance of hands-on experience for training competent teachers. If teacher/coordinators are to acquire perspectives appropriate for their tasks the learning approach is crucial.(10)

There seems to be an overemphasis on more easily transmitted knowledge and insufficient emphasis on judgment and competence to actually perform as an effective teacher/coordinator. Further, the emphasis in the knowledge areas tends to be in traditional teacher education areas, e.g., curriculum for the related class and not in the distinctive cooperative education areas, e.g., relationships with employers and guidance counselors.

Some school districts, some states and some local professional associations provide continuing education for teacher/coordinators. In some cases this is well planned and conducted to meet identified needs. Unfortunately, this seems to be the case in only a few instances. Formal education for certification is necessarily limited. Unless there is a planned continuing educational program for teacher/coordinators, many of the programs they conduct suffer.

If the 26 curriculums are representative of those for teacher/coordinators and if our interpretation of them is accurate, there are serious deficienceis in the training approaches and techniques employed and inexplicable gaps in the course content.

There is a national movement with strong political support to reduce the number and variety of education courses required for entry and certification as a teacher. In some states, there is no entry requirement

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(10) Kolb, D. A., Experiential Learning, Prentice-Hall, Englewood Cliffs, New Jersey: 1984

other than a bachelor's degree. With respect to teacher/coordinators, some states have no formal education requirements. Some others require only a single education course in this specialized area. We believe that competencies required to perform the tasks of a teacher/coordinator effectively cannot be acquired either solely in the classroom or by trial and error on the job. However, it may be politically pointless and undesirable to mandate as many as four specialized courses for certification. Appropriate occupational experience and a single, well-designed, course combining classroom and closely supervised field work may suffice for certification.

Our study and the evidence from practitioners convinces us that much more is needed to develop outstanding teacher/coordinators. There is a wide gap between the competencies of minimally qualified and outstanding, fully qualified teacher/coordinators. The time required for the progression from minimally to fully qualified can be significantly decreased by a well designed training program. The most effective type of program would be a judicious combination of supervised field work and classroom and independent study of theory, research, and practice.

Recommendations

Based on our findings, the following are recommendations to improve the preparation of teacher/coordinators:

1. There should be increased emphasis in both curricula and state manuals on:

   a. Motivating and helping employers to increase and enrich learning at the workplace; working with employers and students to solve work-related problems; and in general, being proactive with respect to making the work place a more effective learning site rather than being a passive monitor and reactive to a limiting set of situations at the work place.

   b. Establishing and maintaining good working relations and collaboratioin with guidance counselors, classroom teachers, and others in the educational system.

   c. Reaching out to others in the community concerned with the state of the labor force, e.g. economic development officials and the state employment service.

d. Beyond these, there should be much more emphasis on the teacher/coordinator's boundary-spanning role; not a common role for teachers.

2. There should be special courses and workshops to help teacher/coordinators and administrators to provide appropriate and effective cooperative work experience education for students with special needs whether in special programs or "mainstreamed."

3. There is a need to train teacher/coordinators to counsel students to meet specific work situations and needs.

4. Instruction in use of performance evaluations should be changed to emphasize using the information to direct and motivate learning and to modify and improve implementation of individual traning plans.

5. Teacher/coordinators should be helped to gain competence in transition planning and assistance. They should be able to establish relationships with job development and training organizations in the community for all graduates. Community resources and techniques for utilizing them effectively should be included in the curriculums.

6. Although emphasized in course curriculums and in state manuals, the key elements "Training plans" and "Advisory committee" are performed poorly in the field. There should be a study to determine how to help teacher/coordinators improve performance.

7. While vocational student organizations and leadership development are seen as important, they seem to be unduly emphasized in the curriculums for teacher/coordinators at the expense of other important elements. The amount of time spent on these could be reduced without any loss in teacher/coordinator effectiveness.

8. Emphasis in evaluation and research on student earnings and post-graduation student earnings are of limited value for program improvement. Evaluation and research emphasis should be redirected to operational research focused on improving specific program elements.

9. There should be material developed and training provided to plan and conduct effective CWEE for special populations such as the learning disabled who are "mainstreamed" and the gifted who need special challenge.

10. There should be emphasis on the importance of involving and gaining the support and cooperation of other faculty members, particularly administrators, guidance counselors and classroom vocational instructors, and on developing and implementing plans to accomplish this.

11. Teacher/coordinators should be well prepared to counsel students on a wide range of work-related and personal problems, and to be able to refer students when the problems are beyond their ken.

12. The minimum requirements for certification should include satisfactory completion of, at least, "Introduction to Cooperative Work Experience Education." The content of the suggested syllabus should be modified and enriched to meet local needs. However, this preparation should be followed by a well designed and executed program to make every teacher/coordinator fully qualified. Workshops and short courses could be developed from the other course outlines. There should be state mandated and sponsored continuing education to introduce new learning, to satisfy identified needs and to help teacher/coordinators learn from their day-to-day experiences. Areas in which teacher/coordinators expressed need included: public relations, orienting and training supervisors, administration, improving the worksite, relating in-school and on-the-job learning, matching students and jobs, labor market analysis, preparing students for work assignments, program planning, training agreements, training plans, recruiting employers, dealing with employers' problems, and handling conflict at the work station.

13. Instructional approaches and techniques should be changed to emhasize learning derived from experience. Cooperative work experience education should be the primary educational approach for training teacher/coordinators.

PART II: A Curriculum for Teacher/Coordinators' Education

Introduction

Every school offers an introductory course which provides a general overview of cooperative work experience education. Some schools offer only this introductory course. Some states do not require any more than this. Some states and schools seem to regard cooperative education as only an ancillary "methods" technique to classroom and workshop instruction and place little emphasis on preparation.

In contrast to these, other states and schools consider cooperative education to be a major educational approach, virtually an essential element of vocational education and require for certification as many as twelve course credits at the undergraduate and graduate levels. Some colleges offer post-certification advanced courses and some states provide continuing education opportunities.

Based on our analysis and recommendations in Part I and discussion of these with practitioners at local school, district and state levels as well as with federal and university people, we developed:

- A course sequence to prepare and fully qualify teacher/coordinators;
- An outline for each course;
- An illustrative syllabus for one course.

Most states require teacher/coordinators to have had a minimum of two years experience in an occupation, one year of teaching experience and at least one course in CWEE. While desirable it would be unrealistic, at this time, to recommend more than one comprehensive course as a minimum requirement. However, we believe that the following courses are desirable for basic qualification:

- Introduction to Cooperative Work Experience Education;
- Administration of Cooperative Work Experience Education;

- Coordinating and Integrating Cooperative Education Activities;

- Improving Learning Opportunities at the Workplace.

The primary teaching approach in all teacher/coordinator training should be cooperative work experience. This approach is currently being recommended for all teacher preparation and is particularly appropriate for training teacher/coordinators.

We recommend that practicing teacher/coordinators acquire special competence in the following areas:

- Cooperative Education for Special Student Populations;

- Obtaining and Using Labor Market Information in Planning and Conducting Cooperative Education;

- Assessment and Research Techniques (with applications to CWEE).

Each of the seven courses or areas includes material relating to several of NCLC's key elements. The emphasis given to each element should depend on the specific local conditions and student population.

While some observers seem to believe that work experience and on-the-job training are adequate preparation for teachers, we do not believe that they are adequate for teacher/coordinators. A knowledge base, including a theoretical model and a frame of reference are required for useful analysis and effective learning from experience. Consequently, we recommend the following three components for the educational approach in each of these courses or workshops:

1. Classroom instruction, discussion, etc. and independent study to provide the knowledge base and useful theory and frame of reference.

2. Supervised work experience, during which participants have opportunities and are encouraged to use and test the theory and knowledge acquired.

3. Small group discussions under the aegis of a skilled coach and counselor, expert in cooperative education, to analyze the participants' experiences, adapt and reinforce learning, and encourage further testing.

While we believe that the same teaching approach is desirable for all teacher/coordinators, we do not feel the same way about course content. Our recommended courses and course content should be modified and adapted to meet local needs and opportunities and the specific teacher population. A combination of full-length (15 session) courses, short courses (3 to 5 sessions), workshops (1 to 3 days) and independent study would, in general, be more effective than a regular diet of full-length courses.

There is a tendency to assume that satisfactory programs remain satisfactory although conditions and needs may change. Unfortunately this is not the case. The best curriculums become outmoded. There must be continuing review of programs to train new teacher/coordinators. Feedback of the findings stemming from monitoring teacher/coordinators' performance in the field should provide the information needed to revise curriculum objectives, design and implementation.

CWEE I: INTRODUCTION TO COOPERATIVE WORK EXPERIENCE EDUCATION*

GOAL:

To help participants acquire the knowledge and minimum competencies needed to serve as teacher/coordinators.

OBJECTIVES:

1. To gain acceptance for the philosophy, goals and role of cooperative work experience education.

2. To help participants acquire the knowledge needed to perform the basic tasks of a teacher/coordinator.

3. To provide the opportunity for participants to use the knowledge to develop the competencies needed to serve as teacher/coordinators and to assess their own performances.

CONTENT:

I. History and current status of cooperative work experience education

   A. Educational philosophy and learning theory on which CWEE is based

   B. Historical development of CWEE

   C. Current status of CWEE -- specialized and diversified programs

   D. Research findings relating to CWEE

   E. Benefits and costs of CWEE for students, employers, schools, communities, et al.

   F. State and federal regulations and guidelines

* A detailed syllabus for this course is included or may be ordered from the National Child Labor Committee.

II. Nature of CWEE in secondary schools

A. Structure: legal and administrative

B. Goals, policies, objectives and program design

C. Role of the teacher/coordinator

D. Educational techniques and processes

E. Intra- and inter-systems relationships

F. Role of the employer

G. The student populations

1. Nature

2. Role

III. Activity areas and key elements

A. Obtaining support for cooperative education

1. Public relations

2. Gaining community support, including linkage with economic development plans and activities and Private Industry Councils

3. The advisory committee

4. Resources

B. Goal setting planning and administration

1. Administration, including documentation for accountability purposes

2. Program planning

3. Selecting and training teacher/coordinators

4. Criteria and priorities for selecting and assigning students

5. Criteria for selecting work stations

6. The training agreement

7. The labor market, including economic development

C. Employer linkages, relations and cooperation

1. Collaborating with employers in planning and providing occupational education

2. Recruiting employers

3. Orienting employers and supervisors

4. The training plan

5. Relating in-school and on-the-job learning

6. Dealing with employers' problems

7. Evaluating students' work performance

D. In-school activities

1. Relationships with counselors, classroom teachers, and other school personnel

2. Matching students and jobs

3. Preparing the student for placement or self-employment (entrepreneurship)

4. Developing the related class curriculum

5. Teaching the related class

6. Counseling students with respect to job and personal problems

E. Follow-up

1. Program evaluation

2. Post-graduation support

IV. Teacher/coordinator activities and tasks

A. In school

B. In the field

C. Reports and records

D. Assessing implementation

E. Professional development

TEACHING METHODOLOGIES:

- o Classroom discussion of assigned readings and field experiences
- o Supervised field experience working as a teacher/coordinator or assistant to a teacher/coordinator or shadowing a teacher/coordinator
- o Interviews with administrators, teacher/coordinators, students, employers, et al.
- o Small-group projects relating to developing, conducting and evaluating a cooperative education program.

RESOURCES:

- Coordinator's Handbook (from any state department of education).
- John Wanat and Margaret Snell, Cooperative Vocational Education, Springfield, Illinois: Charles C. Thomas, 1980, Chapters 1, 2, 3, 5, and 6.
- John Wanat and Margaret Snell, Manual for High School Work Experience Administrators, Boston: Northeastern University, 1983.
- National Child Labor Committee, Managing Cooperative Education; Presenting Cooperative Education; Keys to Cooperative Education Programs; Self Assessment Guidelines for Administrators of High School Cooperative Work Experience Programs, New York: 1984-1985.
- Gary Leske and John Persico, Jr., Indicators of Quality in Cooperative Vocational Education: A Review and Synthesis of Research, St. Paul, Minnesota: Minnesota Research and Development Center for Vocational Education, University of Minnesota, April 1984.
- National Academy of Sciences, Education for Tomorrow's Jobs, Washington, D.C., 1983.
- Mary K. Klaurens, Education and Work Competenices Needed by Experiential Education Personnel, Columbus, Ohio: The National Center for Research in Vocational Education, 1979.
- James B. Hamilton, et al., Coordination of Cooperative Education: Professional Teacher Education Module Series, Athens, Georgia: American Association for Vocational Instructional Materials, 1978, 10 Modules.

CWEE II: ADMINISTRATION OF COOPERATIVE WORK EXPERIENCE EDUCATION

GOAL:

To help participants acquire the knowledge and skills necessary for effective program administration.

OBJECTIVES:

To help participants to:

1. Learn the basics of administration as these apply to cooperative work experience education activities.
2. Identify and define the administrative responsibilities and tasks required for effective cooperative work experience education.
3. Acquire and utilize the skills required for effective administration.

CONTENT:

I. Overview of administration

   A. Role and objectives of administration

   B. Tasks of administration

   C. Administrative processes and techniques

   D. Administration of cooperative work experience education activities

   E. Linkages between teacher/coordinators and administrators at the school, district and state levels, and officials implementing student support and apprenticeship programs.

II. Elements of administration

   A. Goals and policy

   B. Planning

C. Organizing

D. Controlling

E. Relating to persons inside the educational system, including guidance counselors and classroom teachers

F. Relating to persons outside the educational system, including community influentials, economic development officials, and employers

G. Communicating

H. Decision making

I. Assessing

J. Directing

III. Techniques and approaches

A. Strategy and tactics

B. Scheduling

C. Budgeting

D. Monitoring

E. Delegating

F. Management information systems

G. Scanning

H. Networking

I. Coordinating

J. Estimating

K. Resource development

L. Evaluation and research

IV. Legal requirements and required records and reports

A. School

B. District

C. State

D. Federal

V. Applications

A. Data bank

B. Employer relations

C. In-school linkages -- guidance counselors and classroom teachers

D. Student records

E. Advisory committee

F. Element assessment

G. Public relations activities

H. Time management

I. Vocational student organizations

TEACHING METHODOLOGIES:

- Classroom discussion of assigned readings and field experiences
- Field experience working as a teacher/coordinator or an assistant to a teacher/coordinator
- Interviews with administrators, teacher/coordinators, students, employers, et al., or shadowing a teacher/coordinator
- Small-group projects relating to developing, conducting and evaluating cooperative education programs

RESOURCES:

- Coordinator's Handbook (from any state department of education).

- John Wanat and Margaret Snell, Cooperative Vocational-Education, Springfield, Illinois: Charles C. Thomas, 1980, Chapters 8, 12, 13, and 15.

- John Wanat and Margaret Snell, Manual for High School Work Experience Administrators, Boston: Northeastern University, 1983.

- National Child Labor Committee, Managing Cooperative-Education; Presenting Cooperative Education; Keys to Cooperative Education Programs; Self Assessment Guidelines for Administrators of High School Cooperative Work Experience Programs, New York: 1984-1985.

- Gary Leske and John Persico, Jr., Indicators of Quality in Cooperative Vocational Education: A Review and Synthesis of Research, St. Paul, Minnesota: Minnesota Research and Development Center for Vocational Education, University of Minnesota, April 1984.

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- Mary K. Klaurens, Education and Work Competencies Needed by Experiential Education Personnel, Columbus, Ohio: The National Center for Research in Vocational Education, 1979.

- Alan C. Filly, Robert J. House, Steven Kerr, Managerial Process and Organizational Behavior, Glenview, Illinois: Scott, Freeman and Company, current edition.

CWEE III: COORDINATING AND INTEGRATING COOPERATIVE EDUCATION ACTIVITIES

GOAL:

To help participants acquire the competencies to coordinate and integrate activities for effective cooperative work experience education.

OBJECTIVES:

To help participants to:

1. Identify and define coordination and integration required and desirable.

2. Determine specific coordinating and integrating tasks required and how these can be performed most effectively.

3. Acquire the knowledge and skills required to:

   a. Coordinate student and worksite recruitment and selection

   b. Integrate student recruitment, selection, and preparation for work and placement

   c. Coordinate in-school and workplace activities and learning

   d. Integrate evaluations of student learning, performance, needs and potential

   e. Coordinate all student-focused activities

CONTENT:

I. A systems approach* to cooperative work experience education

   A. The education and on-the-job training subsystems

      1. Education subsystem -- objectives (output) and activities (throughput)

*We define "systems approach" as one which is concerned with the totality of elements of cooperative education and the structure, processes, and relationships among these and with the environment, rather than concern with a few individual elements or subsets of elements.

2. On-the-job training systems -- objectives and activities

3. Common and independent objectives, related and unrelated activities

B. The need for formal and informal interrelations and linkages between subsystems

C. Identifying potential problems and opportunities

D. Determining coordinating and integrating objectives

1. General

2. For specific situations

E. Developing a system integrating and coordinating strategy

II. Coordinating and integrating the roles, responsibilities and activities of:

A. Administrative staff

B. Teacher/coordinator

C. Students

D. Employers

III. Coordinating and integrating techniques

A. Orientation for employers and worksite personnel, training agreements and plans, formal and informal meetings, manuals and guides for employers, employer participation in school programs, teacher/coordinator's visits, teacher/coordinator's monitoring of the worksite and feedback to the supervisor, employer's curriculum recommendations and preparation of students for work, supervisors' evaluation of students' performance, employer recognition, support services, etc.

B. Tailoring the approach depending on employer, occupation, student, school resources, teacher/coordinator time, etc.

C. Involving the students, employers, and other school personnel, e.g. guidance counselors

IV. Application: to develop, implement and test plans to coordinate and integrate in-school and on-the-job objectives and activities

A. Recruiting, selecting, preparing and placing students

B. Identifying and recruiting employers, placing students and following up on placements

C. Coordinating content of classroom and worksite learning

D. Employer conformance with guidelines and legal requirements

E. Providing training and other assistance for employers

F. Obtaining employers' recommendations with respect to individual students and vocational education curriculum and preparation in general

G. Utilizing employers' recommendations and providing feedback

H. Changing activities, providing support services, etc. to improve coordination

V. Assessing effectiveness of coordination and integration

A. Relationships between classroom and job activities

B. "Time on task" at the workplace

C. Changes in classroom to meet job needs

D. Changes in job to meet classroom needs

E. Helping students obtain post-graduation employment

TEACHING METHODOLOGIES:

- Classroom discussion of assigned readings and field experiences
- Field experience working as a teacher/coordinator or an assistant to a teacher/coordinator

- o Interviews with administrators, teacher/coordinators, students, employers, et al., or shadowing a teacher/coordinator

- o Small-group projects relating to developing, conducting and evaluating cooperative education programs

RESOURCES:

- Coordinator's Handbook (from any state department of education).

- John Wanat and Margaret Snell, Cooperative Vocational Education, Springfield, Illinois: Charles C. Thomas, 1980, Chapters 4, 5, 8, 11.

- John Wanat and Margaret Snell, Manual for High School Work Experience Administrators, Boston: Northeastern University, 1983.

- U. S. Department of Labor Dictionary of Occupational Titles

- U. S. Department of Labor, Occupational Outlook Handbook

- National Child Labor Committee, Managing Cooperative Education; Presenting Cooperative Education; Keys to Cooperative Education Programs; Self-Assessment Guidelines for Administrators of High School Cooperative; Work Experience Programs, New York: 1984-1985.

- Gary Leske and John Persico, Jr., Indicators of Quality in Cooperative Vocational Education: A Review and Synthesis of Research, St. Paul, Minnesota: Minnesota Research and Development Center for Vocational Education, University of Minnesota, April 1984.

- National Academy of Sciences, Education for Tomorrow Jobs, Washington, D.C., 1983.

- Mary K. Klaurens, Education and Work Competenices-Needed by Experiential Education Personnel, Columbus, Ohio: The National Center for Research in Vocational Education, 1979.

CWEE IV: IMPROVING LEARNING OPPORTUNITIES AT THE WORKPLACE

GOAL:

To prepare participants to motivate and assist employers to provide and improve learning opportunities at the work site.

OBJECTIVES:

To help participants gain the competencies needed to:

1. Assess the learning potential and environment of work stations.
2. Develop and implement plans to motivate employers to provide cooperative work experience education work stations.
3. Develop plans to improve work station learning opportunities.
4. Motivate and assist employers to implement plans to improve work station learning opportunities.

CONTENT:

I. Assessing the learning potential and environment of work stations
   - A. Criteria
     1. Legal
     2. Educational
     3. Transition form school to work
   - B. Information
   - C. Assessment Techniques

II. Identifying work stations with desirable learning potential and environment

A. Surveying local labor market

B. Identifying potential work stations

C. Maintaining a work station data bank

D. Matching learning potential with students' needs and classroom education

E. Estimating possibility of improving the match

III. Motivating desirable employers to participate

A. Developing a supportive community and business atmosphere

B. Developing and implementing an employer recruiment plan

C. Motivating employers to make changes to meet students' needs

IV. Improving learning opportunities

A. Assessing the degree to which a specific student's needs will be met by present classroom and work station learning opportunities

1. Prior to placement

2. During employment

B. Determining whether learning opportunities need to be enriched and, if they do, how

1. Classroom -- core, occupational, other

2. Work station -- tasks, standards, training, supervision, other

C. The training plan

1. Upon placement

2. During employment

D. Implementing and monitoring the training plan by:

1. Work supervisor

2. Student

3. Teacher/coordinator

V. Preparing and training supervisors

A. Orientation to cooperative work experience education

B. Supervising and training young workers

C. Coordinating and integrating classroom and work site learning

D. Developing a learning environment at the work site

E. Job design and task assignment to mesh with classroom learning

F. Assessing and recommending classroom learning

VI. Enriching classroom learning to help students meet work station demands

TEACHING METHODOLOGIES:

- Classroom discussion of assigned readings and field experiences
- Field experience working as a teacher/coordinator or an assistant to a teacher/coordinator
- Interviews with administrators, teacher/coordinator students, employers, et al., or shadowing a teacher/coordinator
- Small-group projects relating to developing, conducting and evaluating cooperative education programs

RESOURCES:

- Coordinator's Handbook (from any state department of education).

- John Wanat and Margaret Snell, Cooperative Vocational Education, Springfield, Illinois: Charles C. Thomas, 1980, Chapters 7, 8, 8, 14.

- U. S. Department of Labor Dictionary of Occupational-Titles

- U. S. Department of Labor, Occupational Outlook Handbook

- National Child Labor Committee, Managing Cooperative-Education; Presenting Cooperative Education; Keys to-Cooperative Education Programs; Self Assessment Guidelines for Administrators of High School Cooperative Work Experience Programs, New York: 1984-1985.

- Gary Leske and John Persico, Jr., Indicators of Quality in Cooperative Vocational Education: A Review and Synthesis of Research, St. Paul, Minnesota: Minnesota Research and Development Center for Vocational Education, University of Minnesota, April 1984.

CWEE V: COOPERATIVE EDUCATION FOR SPECIAL STUDENT POPULATIONS

GOAL:

To increase and reinforce the will and competence of teacher/coordinators to design and conduct effective cooperative education programs for special student populations.

OBJECTIVES:

To provide information and opportunities for teacher/coordinators to acquire the will and competence to effectively:

1. Work with special student populations
2. Obtain and utilize special resources to help these populations
3. Develop and maintain a network of concerned organizations
4. Develop community and employer support to provide work training opportunities for the students:
   a. Obtain and utilize resources needed
   b. Help work supervisors to train students
   c. Link classroom and on-the-job learning
   d. Provide needed support services
   e. Help students become competitive in the labor market

CONTENT:

I. Overview of special student populations
   A. Special populations
      1. Students identified in a special needs category with respect to CWEE who are:
         a. Mainstreamed
         b. Not mainstreamed

2. Physically or mentally handicapped

3. Economically disadvantaged

4. Educationally disadvantaged

5. Gifted and talented

B. Defining special needs populations, their characteristics, and special requirements

C. Legislation related to special needs students and economically disadvantaged

D. Importance of work experience and benefits for special needs students in cooperative education

E. Characteristics of exemplary cooperative education programs for special student populations

II. Role and desirable qualifications of teacher/coordinators

A. How the role differs from that of other teacher/coordinators and special education teachers

B. Education and certification

C. Experience

D. Training

III. A. Resources for students with special needs

1. Governmental

2. Voluntary organizations

3. Other

B. Obtaining and utilizing special resources

IV. Developing community and employer support

A. Utilizing parental influence

B. Cooperating with voluntary and governmental agencies concerned with special populations

C. Interesting employers and employer organizations

D. Involving civic and social welfare organizations

V. Developing a network to advance CWEE for students with special needs

A. Properties and uses of networks

B. Developing and monitoring a network

C. Developing a network for CWEE

1. Identifying appropriate numbers

2. Recruiting and motivating members

3. Structuring the network

4. Functioning

D. Maintenance

VI. Career assessment and vocational guidance for special student populations

A. Use of school resources

B. Use of community resources

C. Evaluating special needs students' development

VII. Recruiting and selecting special needs students and others from special populations

A. Program policies and priorities

B. Coordination with guidance counselors

C. Overcoming resistance

D. Realistic Appraisal

1. In school

2. Use of network

E. Early identification

F. Developing school, community and parental support

G. Developing, defining, and utilizing criteria for selection

H. Evaluating the selection process

VIII. Preparing special needs students for work

A. Objectives

B. Use of network resources

C. Early preparation

D. Social adjustment -- confidence, self-reliance, work habits, etc.

E. Content and focus

F. Approaches and techniques

G. Criteria and requirements

H. Feedback and reinforcement

I. Evaluating students' potential and needs

IX. Motivating special needs students

A. Special problems

B. Overcoming expectations of failure

C. Gaining their confidence and trust

D. Need for short-term and continuing success

E. Recognition of appropriate behavior

F. Relating classroom learning with on-the-job requirements

G. Network resources

X. Special support services and benefits for employers

A. Financial

B. Legal

C. Training

1. Orienting and training work supervisors

2. Training and helping students perform well on the job

3. Linking on-the-job and classroom learning

XI. Helping students gain confidence and competitive skills

A. Identifying appropriate employers and jobs

B. Promoting skilled supervision on the job

C. Job design and redesign

D. Matching students and jobs

E. Structuring the work experience

F. Training agreement and training plan

G. Improving learning on the job

H. Linking classroom and on-the-job learning

I. Documenting employability

XII. Special supports and services for students with special needs

A. Students' needs

B. Resources

1. Educational system

2. Other governmental agencies

3. Voluntary organizations

XIII. Helping special needs students obtain employment after graduation

A. Planning the transition

B. Identifying and using resources

C. Obtaining and using labor market information

D. Publicizing and promoting special needs students' employability

E. Job fairs and other techniques

F. Developing individual career plans

G. Matching students and employers

H. Identifying resources for further education and training

I. Arranging for continued support

XIV. Evaluating CWEE for special student populations

A. Defining objectives and use of the evaluation

B. Follow up and other data

C. Gathering data

D. Analyzing data

E. Developing and utilizing a change plan

TEACHING METHODOLOGIES:

- Classroom discussion of assigned readings and field experiences
- Supervised field experience working as a teacher/coordinator with special needs students or as an assistant coordinator, or shadowing a teacher/coordinator
- Interviews with administrators, teacher/coordinators, special education and rehabilitation specialists, students, employers, et al., assessing operating programs
- Small-group projects relating to developing, conducting and evaluating cooperative education programs for students with special needs.

RESOURCES:

- A Guide to Involving the Special Needs Student in Cooperative Vocational Education, Terre Haute, Indiana: Indiana Curriculum Materials Center, Indiana State University.

- Dennis Hershback, et al., Cooperative Work Experience: An Annotated Resource Guide for Teachers of the Handicapped, College Park, Maryland: Department of Industrial Education, University of Maryland.

- Serving Students with Special/Exceptional Needs, 13 modules, Athens, Georgia: American Association for Vocational Instructional Materials, University of Georgia.

- A System for Identification, Assessment and Evaluation of the Special Needs Learner in Vocational Education, 9 guides and an administrators manual, Urbana-Champaign, Illnois: Bureau of Educational Research, University of Illinois, Urbana-Champaign Campus.

- National Child Labor Committee:

  Cooperative Education Programs For Students with Special Needs, New York: 1985.

  Managing Cooperative Education, New York: 1984.

  Presenting Cooperative Education, New York: 1984.

  Keys to Cooperative Education Programs, New York: 1985.

  Self-Assessment Guidelines for Administrators of High School Cooperative Work Experience Programs, New York: 1984.

- John Wanat and Margaret Snell, Cooperative Vocational Education, Springfield, Illinois: Charles C. Thomas, 1980, Chapter 4.

- Harold Russell Associates, Report on Cooperative Education for Transition from School to Work, Washington, DC: U.S. Department of Education, National Institute of Handicapped Research, 1984.

- Nebraska Department of Education, Serving the Gifted and Talented Through Cooperative Education, Lincoln, Nebraska: n.d.

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CWEE VI: OBTAINING AND USING LABOR MARKET INFORMATION IN PLANNING AND CONDUCTING COOPERATIVE EDUCATION

GOAL:

To help participants gain competence to: (1) advise faculty and students on the availability of jobs which can provide appropriate work experience in specific occupational areas and full-time employment for graduates, and (2) identify and recruit employers who have jobs which could provide work experience in specific occupational areas required by cooperative education students.

OBJECTIVES:

To help teacher/coordinators acquire:

1. Competence to determine the labor market information needed to achieve the stated goals of CWEE
2. Familiarity with sources for this information and competence to use these sources effectively
3. Skill to plan and conduct simple surveys needed to supplement and complement the available information
4. Competence to organize and analyze data and to establish, maintain and utilize a labor market data bank

CONTENT

I. Introduction to labor market information
   - A. The concept of the labor market
   - B. Labor market data and information
   - C. Labor market terms and concepts
   - D. Using labor market information in CWEE
   - E. Sources of labor market data and information
   - F. Reliability and validity of labor market information

G. Role of the teacher/coordinator with respect to determining need, obtaining, using, and evaluating labor market information

H. Roles of guidance counselors and others

II. Determining the need for labor market data

A. Counseling students for:

1. Cooperative Work Experience Education

2. Employment for graduates

B. Placing:

1. CWEE students

2. Graduates

C. Occupational characteristics -- working conditions, tasks, work standards, hiring channels, minimum requirements, etc.

D. Competition for jobs -- CWEE students, high school graduates, graduates of other training programs, experienced workers, unemployed, et al., by occupation

E. Job openings by industry and occupation with

1. Large employers

2. Medium-sized employers

3. Small employers

F. Possibilities to create entry-level positions by job redesign

III. CWEE Student data

A. Number of students who will seek employment in each occupation upon graduation

B. Number of students who will seek cooperative education placements in their 11th and 12th years of school

C. The nature of the tasks these students will be qualified to perform

D. Students with special needs -- number, type of handicap, potential

IV. Developing and maintaining a data bank

A. Useful historical data

B. Storage methods and facilities

C. Retrieval techniques

D. Structuring the data bank for efficient and effective utilization of:

1. data to store

2. organizing the data

E. Reviewing, maintaining and up-dating the data bank

V. Identifying and utilizing labor market information resources

A. Sources:

1. public -- federal, state, local

2. private

B. Nature of information and other assistance available from each source

C. Developing relationships for continuing assistance

VI. Additional information

A. Determine additional needs

B. Alternatiave means for obtaining needed information:

1. local surveys

2. adapting available information

3. developing new sources

C. Cost/benefit relationship for activities to obtain additional information

VII. Use of labor market information

A. Assessing placement and employment potential for selected occupations

B. Identifying potential employers

C. Determining adequacy of students' preparation

D. Evaluating curriculum

E. Advising vocational education faculty, students, et al.

F. Planning CWEE recruitment and other program elements and activities

VIII. Evaluating design of data bank and use of labor market information

TEACHING METHODOLOGIES:

- Classroom discussion of readings and assignments in the determination of need for labor market information and design and use of a data bank.
- Supervised, related field experience working as a teacher/coordinator or as an assistant to a teacher/coordinator or shadowing a teacher/coordinator
- Interviews with department of labor specialists, employment agencies, counselors, administrators, teacher/coordinators, employers, et al., regarding the need and use of labor market information
- Small-group projects relating to developing, maintaining, utilizing and evaluating labor market data banks for cooperative education programs

RESOURCES:

- Catherine Connelly and Steven Saxton, How to Develop and Use Labor Market Information in Local Occupational Program-Planning, Sacramento, California: California Occupational Information Coordinating Committee, December 1982.

- Harold Starr, et al., Using Labor Market Information in Vocational Planning, Columbus, Ohio: The National Center for Research in Vocational Education, 1982.

- U. S. Department of Labor, Occupational Outlook Handbook, Washington, DC: Superintendent of Documents.

- U. S. Department of Labor, Improved Career Decision Making Through the Use of Labor Market Information, and Trainers Guide, Washington, DC: Superintendent of Documents.

- American Council of Life Insurance, "The Changing Workplace: Perceptions-Reality," Trend Analysis-Program, March 1984.

- Harry N. Drier and Linda A. Pfister, eds., Career- and Labor Market Information: Key to Improved Individual Decision Making, Columbus, Ohio: The National Center for Research in Vocational Education, 1980.

- Patrick D. Walsh, "Comparing Occupations: Four Measures," Occupational Outlook Quarterly, Fall 1982.

- U. S. Department of Labor, Jobs in the Private Sector: Use of Labor Market Information, Washington, DC: Super intendent of Documents.

- Harold Goldstein, Future Labor Market Demand and Vocational Education, Washington, DC: National Institute of Education, September 1980.

- Barbara McIntosh and Theodore C. Settle, "Managing Local Labor Market Transactions Through Interorganizational Networks," Thrust, Winter-Spring 1982.

- George H. Copa, "How to Use Labor Market Information to Improve Vocatonal Education," Thrust, Winter-Spring 1982.

- National Child Labor Committee, Presenting Cooperative Education and Keys to Cooperative Education Programs, New York: 1984-1985.

CWEE VII: ASSESSMENT AND RESEARCH FOR TEACHER/COORDINATORS

GOAL: To help participants to acquire the knowledge and skills to obtain and use information needed to design, implement and assess cooperative work experience education.

OBJECTIVES:

To prepare participants:

1. To evaluate and use research reported in the literature.

2. To design and conduct research:

   a. to assess and improve design and implementation of key elements

   b. to describe program and population characteristics

   c. to identify and deal with opportunities and problems, e.g., in marketing.

CONTENT:

I. The nature and objective of CWEE assessment and research.

   A. Types of assessment and research

   B. Objectives: To obtain information to:

      1. design and implement cooperative work experience education

      2. Assess design and implementation of plans, programs, and elements

      3. Monitor and control implementation

      4. Demonstrate benefits of CWEE

II. Assessment and research designs

   A. Purpose of design

B. Elements

1. Objectives

2. Determining desirability and feasibility

3. Determining needed data

4. Obtaining required data

5. Organizing data

6. Analysis

7. Findings and conclusions

8. Evaluating use of finding

III. Determining desirability and feasibility of research

A. Purpose

B. Elements and techniques

C. Limits, barriers and disincentives to conduct research

D. Limits, barriers, and disincentives to use research

E. Making a decision

IV. Data

A. Determining the data needed

B. Defining the population and determing the appropriate sample

C. Designing and using data gathering instruments and techniques

1. Surveys

2. Questionnaires

3. Logs

4. Interviews

5. Tests

6. Observation

D. Evaluating data

1. Reliability

2. Validity

V. Organizing the data

A. Purpose -- to facilitate analysis

B. Descripitive techniques

1. Charts

2. Tables and graphs

3. Matrices

C. Analytic, quantitative techniques

1. Measures of central tendency

2. Measures of dispersion

3. Indices

D. Selecting the appropriate organizing approach

VI. Analysis

A. Purpose, i.e., use of findings

1. Qualitative

2. Quantitative

B. Techniques and output

1. Descriptive

2. Analytic

VII. Use of findings

A. Relating findings to objectives

B. Utilizing unanticipated findings

C. Dissemination of information

D. Evaluating use

VIII. Summary and review

TEACHNG METHODOLOGIES:

- Field work -- participants to apply the knowledge and skills to design, conduct and evaluate research of cooperative programs.
- Lecture, independent reading and review and analysis of research papers.
- Simulation, case studies and classroom discussion of research techniques and concepts to reinforce learning and provide occasions for skill development.
- Conduct an assessment of a specific CWEE program.

RESOURCES

- L. Ruthman, Planning Useful Evaluations, Beverly Hills, California: Sage Publications, 1980.

- J. S. Wholey, Evaluation: Promise and Performance, Washington, D.C.: Urban Institute, 1979.

- E.L. Struening and M. Guttentag, eds., Handbook of Evaluation Research, Beverly Hills, California: Sage Publications, 1975.

- L. Rutman, ed, Evaluation Research Methods: A Basic Guide, Beverly Hills, California: Sage Publications, 1977.

- R. C. Rist, "On the Means of Knowing: Qualitative Research in Education," New York University Education Quarterly, Vol. 1, No. 4, 1979.

- D. Conrad and D. Hedin, Instruments and Scoring Guide of the Experiential Education Evaluation Project, St. Paul, Minnesota: Center for Youth Development and Research, University of Minnesota, 1981.

- M.R. Crowe and K.A. Adams, The Current Status of Assessing Experiential Education Programs, Columbus, Ohio: The National Center for Research in Vocational Education, 1979.

- National Alliance of Business, Planning, Management and Evaluation: Realizing PIC Potential, Washington, D.C.

- J. Wanat and M. Snell, Cooperative Vocational Education, Springfield, Illinois: Charles C. Thomas, 1980, Chapter 15.

- National Child Labor Committee, Managing Cooperative Education, and Keys to Cooperative Education Programs, New York: 1984 - 85.

- National Child Labor Committee, Self-Assessment Guide for Administrators of High School Cooperative Work Experience Programs, New York: 1985

- Kaplan, A., The Conduct of Inquiry, Chandler Publishing Company, New York, New York: 1964

PART III: SYLLABUS COOPERATIVE WORK EXPERIENCE EDUCATION

Cooperative Work Experience Education I

I. History and Current Status of CWEE

A. Educational philosophy and learning theory on which CWEE is based.

1. A discussion of learning-by-doing philosophy of education starting with John Dewey and coming down to the present.

2. Presentation of cooperative education as:

a. an educational strategy
b. a productive, coordinated learning experience for students
c. an integral element of the curriculum
d. an approach adaptable to changing technology and local labor market needs and opportunities

3. Cooperative education, work study, and other work experience approaches

B. Historical development of CWEE

A brief history of cooperative education in the United States at both the secondary and post-secondary levels and state and federal legislation which encouraged the establishment and conduct of cooperative education.

C. Current status of CWEE

1. An overview of the relationships between work experience and education; definitions of several approaches; comparison and analysis of specialized and diversified programs; and a general discussion of the differences between different approaches.

2. A description of the utilization of cooperative education nationally: the number and types of students who participate; the distribution of students by state;

urban, suburban and rural school districts; occupation; eleventh year and capstone; comprehensive and vocational schools; diversified and specialized programs; etc.

3. Forces and conditions which favor or present barriers to the improvement and expansion of cooperative education.

D. Research findings relating to CWEE

1. Overall analysis and recommendations to improve cooperative education.(1)

2. Assessing experiential education.(2)

3. Benefits of cooperative education for students, teachers, employers and communities.(3)

4. Business participation.(4)

5. Community involvement in cooperative education.(5)

6. Tasks performed by teacher/coordinators.(6)

7. Placement after graduation, employment stability, and job satisfaction.(7)

E. Benefits and costs of CWEE for:

1. Students: test occupational learning, career exploration, self-assessment, vocational adjustment, identify need and encourage needed remediation, transition from school to work, learn-by-doing and linkage to classroom, self-confidence, integration into heterogeneous work society, obtain desirable work habits, income, etc.

2. Employer: supply of qualified workers, participate in determining education for work, community service, reduce cost of entry training, etc.

3. Schools: better preparation of youth for work, link theory to practice, current technology and equipment, business support and input, strengthen transition to work,

reduce need for capital investment, reduce need for higher education, increase value of secondary education, feedback on effectiveness of classroom teaching, motivate student learning, etc.

4. Community: increase employability of youth, reduce need for social services, reduce biases against youth and minorities, help business and economic development, greater knowledge of preparation for work, increase harmony among groups, etc.

5. Society: reduce structural unemployment, reduce cost of services, reduce need for special training for unemployed youth.

F. State and federal regulations (general)

1. Education laws

2. Labor laws

3. Wage and hour regulations

4. Targeted jobs tax credits (TJTC)

5. Safety

6. State guidelines.

II. Nature of CWEE in Secondary Schools

A. Structure

1. Legal requirements for employing young people: liability, workers' compensation, federal and state child labor laws, hazardous orders, education law, occupational safety, vocational education acts.

2. Administrative requirements:

a. financial and accounting
b. time management -- scheduling
c. planning and controlling
d. interpersonal relations
e. communication
f. reporting
g. funding sources
h. advisory committee

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3. State department of education activities, services and relationships with LEAs

4. Allocation of tasks and responsibilities between school district and high schools

B. Goals, policies, objectives and program design

1. Educational goals and policies

2. CWEE objectives

a. education
b. students
c. employers
d. community

3. Advisory committee's role in setting goals and policies and in reviewing program objectives and achievements.

4. Program designs

a. approach

(1) specialized
(2) diversified
(3) apprentice skills

b. school objectives and activities
c. work place objectives and activities
d. community objectives and activities
e. linkages

C. Role of the teacher/coordinator

1. Teaching

2. Guidance

3. Coordination between classroom and work site learning

4. Administrative

5. Marketing

6. Public relations

7. Linking cooperative education goals and

activities with those of others in school, workplace, and community.

D. Educational techniques and processes including:

1. Assessing, selecting and assigning students
2. Training agreement and training plan
3. On-the-job training
4. Performance evaluation and using performance evaluations
5. Job rotation
6. Task sequencing
7. Guidance and consultation
8. Coordinating school and work learning
9. Focused remediation and skill education
10. Group and independent learning
11. General related instruction
12. Counseling
13. Feedback from students and supervisors
14. Field trips
15. Student organizations
16. Reinforcing learning
17. Apprenticeships

E. Intra- and inter-systems' relationships

1. In the school system

a. academic
b. vocational
c. administrative
d. state and local
e. students

2. At the work place

   a. employer
   b. supervisor
   c. other workers
   d. students

3. In the community

   a. organized groups: civic, religious, employer
   b. media
   c. public officials
   d. parents

F. Role of the employer

1. Assignment

2. Job design

3. Supervision

4. On-the-job instruction

5. Evaluate student performance and educational needs

6. Feedback with respect to student and vocational education

7. Safe work place

8. Training agreement and training plan

9. Role models

10. Pay

11. Consulting with teacher/coordinator

12. Documented employability for student

G. Students

1. Populations: characteristics, needs,

issues and problems

a. work readiness
b. post-secondary objectives and plans, e.g. work and education
c. disadvantaged
d. special needs
e. female
f. mainstream
e. gifted

2. Role and responsibilities

a. work ready
b. appropriate work behavior and responsibilities
c. interest in learning and gaining competence
d. on the job performance
e. assess and report on learning on the job
f. seek remediation when needed
g. classroom performance
h. consult with teacher/coordinator
i. integrate school and work learning

III. Activity Areas and Key Elements

A. Obtaining support for cooperative education (general discussion of need and approaches).

1. Public relations

a. objectives
b. specific populations, e.g., business community, other community organizations, past employer participants, school faculty and parents
c. approaches, e.g. personal contact, printed materials, media stories, and presentations before groups.
d. developing and implementing a public relations plan

2. Gaining community support

a. objectives -- relating to objectives of other organizations, e.g. economic development agency and Private Industry Council
b. approaches -- focus on influentials, community programs, interested organizations, and other jobs training

and development organizations
c. developing and implementing a community support plan

3. The advisory committee

a. membership
b. role in making policy
c. role in obtaining support
d. helping the advisory committee carry out its role

4. Resources

a. educational system: federal, state, local
b. other government sources
c. employers and employer organizations
d. professional and regional educational organizations
e. other professional organizations, e.g. American Society for Training and Development
f. community organizations

B. Goal setting, planning and administration (general discussion)

1. Administration: providing the structure, planning, resources, monitoring, relationships with others, record keeping controls and meeting accountability requirements needed to design and implement the educational program and related activities.

2. Program planning: defining the program objectives and strategy, resources, activities, etc., to achieve CWEE goals, operational and strategic planning.

3. Selecting and training teacher/coordinators: description of the competencies needed to be an effective teacher/ coordinator, common criteria and procedures used to select teacher/coordinators, and university and state and local education system programs to maintain and increase teacher/coordinators' competence.

4. Criteria and priorities for selecting and assigning students:

a. general

National Child Labor Committee

b. special populations

(1) special needs
(2) economically disadvantaged
(3) gifted and talented

5. Criteria for selecting work stations

a. state department of education and local education agency requirements
b. teacher/coordinator's criteria, including matching students and jobs, past record of cooperation, and employment opportunities after graduation.

6. The training agreement: purpose, elements format, responsibilities of school, employer, student and parents and implementing the agreement.

7. Labor market analysis and use in CWEE

8. Records and reports

C. Employer linkages, relations and cooperation

1. Collaborating with employers in planning and providing occupational education in school and on the job

a. obtaining employers' participation

(1) labor market needs
(2) curriculum
(3) developing students' competencies
(4) resources
(5) feedback

b. making effective use of employers' collaboration.

2. Identifying appropriate employers and developing and implementing a plan to gain participation by these employers.

3. The need and means to orient employers and work supervisors with respect to CWEE and their roles and those of others.

4. The training plan: purpose, relationship to the training agreement, elements, roles of

teacher/coordinator, employer, and student, preparation, format, implementation and monitoring.

5. Relating in-school and on-the-job learning: the distinctive element of CWEE, introduction to the processes and techniques for meshing and strengthening work experience and classroom learning to make these activities mutually supportive.

6. Dealing with employers' problems: the need and means to deal satisfactorily to strengthen relationships, obtain information about the work place, provide information about in-school activities, etc.

7. Evaluating students' work performance

   a. role of performance evaluation in CWEE
   b. motivating and helping supervisors to make useful evaluations and provide feedback to students and teacher/coordinators
   c. using the performance evaluation to guide and counsel the student, provide remediation, modify class curriculum, etc.

D. In-school activities

1. Teacher/coordinators' relationships with counselors, classroom teachers and other school personnel.

   a. support for CWEE
   b. counseling students
   c. selecting and assigning students
   d. providing remedial and advanced skill education
   e. making special arrangements
   f. evaluation

2. Matching students and jobs

   a. counselor participation
   b. alternative placement policies and criteria
   c. student profiles
   d. work station profiles
   e. making the match
   f. developing a matching information bank

3. Preparing the student for placement and transition to labor market

   a. general
   b. in CWEE
   c. specific job placement
   d. entrepreneurship
   e. employment after graduation

4. Developing the related class curriculum

   a. sources of information
   b. life and work place knowledge and skills
   c. occupational competencies
   d. remediation
   e. review and evaluation
   f. role of the employer

5. Teaching the related class

6. Counseling students with respect to job and personal problems

   a. roles of the teacher/coordinator and the guidance counselor
   b. job related problems
   c. personal and home problems

E. Follow-up

1. Program evaluation

   a. student learning and evaluation
   b. employer evaluation
   c. impact

      (1) populations served
      (2) employment after graduation

   d. review of programm elements and their effectiveness
   e. using the evaluation

2. Post-graduation support

   a. exit counseling
   b. job fairs and other job development efforts for graduates
   c. post-secondary vocational education

IV. Teacher/Coordinator Activities and Tasks

A. In school

1. Program design and administration
2. Gaining faculty support
3. Recruiting, selecting and placing students
4. Arranging scheduling and other activities to facilitate student participation
5. Conducting or arranging for the related class
6. Liaison between classroom and work station
7. Arranging for remediation

B. In the field

1. Publicity for CWEE
2. Identifying and recruiting employers
3. Liaison with employers
4. Monitoring work stations
5. Orienting and training supervisors

C. Reports and records

1. Program
2. Student
3. Employer

D. Self-assessment

1. Design
2. Implementation
3. Utilization

E. Professional development

1. Professional organizations
2. Educational Programs
3. Independent study

FOOTNOTES

1. Hoberman, 1982; Lloyd, 1982; Leske & Persico, 1984; Harold Russell Associates, 1984.

2. Conrad & Hedin, 1981; Grove & Adams, 1979; National Academy, 1983; Harold Russell Associates, 1984.

3. Wilson & Lyons, 1961.

4. Lewis & Fraser, 1982; Hoberman, 1982.

5. Lewis & Fraser, 1982.

6. Humbert & Woloszyk, 1983; Mitchell, 1987.

7. Lewis & Fraser, 1982.

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APPENDICES

A. QUESTIONNAIRE TO SCHOOLS OF EDUCATION

B. KEY ELEMENTS

C. EMPHASIS ON KEY ELEMENTS

D. MATRIX OF IMPORTANCE/EMPHASIS

E. ELEMENTS FOR TRAINING TEACHER/COORDINATORS

APPENDIX A: QUESTIONNAIRE TO SCHOOLS OF EDUCATION

1. Does your institution currently offer specific courses to prepare educators to be vocational teacher coordinators? _____Yes No_____

2. If yes, are these courses mandated by the State? _____Yes No_____

3. Does your institution offer in-service workshops specifically geared to the needs of vocational teacher/coordinators?

4. If you responded yes to question #1 above would you please list the specific courses.

   1. _____

   2. _____

   3. _____

   4. _____

   5. _____

   6. _____

5. If you responded yes to question #3 above would list the types of in-service programs you offer and the frequency of offerings.

   1. _____

   2. _____

   3. _____

Name and title of person responding _____

Name of institution _____

Address _____

Telephone _(____)_____

APPENDIX B: KEY ELEMENTS*

Arranged in Functional Areas** and grouped within area by Level of Importance.***

KEY ELEMENT DEFINITIONS

Functional Area A: Obtaining Support for the Program

LEVEL I

1. Public relations: on-going activities to inform both the general public and key groups, e.g., employers, about the cooperative education programs's objectives, activities, concepts, ideals, and successes for the purpose of developing support for programs and increasing participation.

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* Information was obtained from state education departments, local school programs, and other sources about criteria, elements, and characteristics of successful programs, and forty- nine elements were identified as key for cooperative education programs.

** Five Functional Areas into which the key elements fall: A: Obtaining Support for the Program; B: Goal Setting, Planning and Administering the Program; C: Employer Linkages, Relations and Cooperation; D: In-School Program Activities; E: Follow-up

*** Importance for design and conduct of an outstandidng secondary cooperative education program. Level I contains the most important elements, etc. The order within levels is random and not indicative of relative importance.

LEVEL II

2. Employer recognition: A formal program to recognize and encourage continued employer participation and efforts to achieve program objectives and to increase support for cooperative education.

3. Community support for programs: The view of people and organizations in the community with respect to cooperative education programs and their expressed positions with respect to continuing and expanding these programs.

4. Support for program by employers' personnel: Increasing the support of supervisors and other workers to the objectives and processes of the program and the degree to which they try to implement the training agreement and training plan.

LEVEL III

5. Status of work experience programs in the school system: How participants, students and staff are viewed by others in the school and the level of acceptance, endorsement and support for cooperative education given by principals, guidance counselors, teachers, and administrators.

6. Parents' participation and support: The degree to which parents are involved in the cooperative education program including: serving on advisory committees, participating in activities to gain community and employers' support for cooperative education, supporting cooperative education goals and policies, and keeping informed of their children's progress.

7. Citizen advisory or steering committee: An official body with persons representing employers and community groups which meets regularly for the purpose of offering counsel, direction and assistance for the cooperative education program.

8. Recruiting students: The techniques and approaches used to inform and attract students for cooperative education.

LEVEL IV

9. Resources provided by government: Both budgeted and unbudgeted resources made available by the federal, state, and local governments for the cooperative education program, including funds, materials, supplies, equipment, space, staff, consulting services, and technical assistance.

10. Resources obtained from other than government sources: Resources, including: materials, supplies, equipment, consulting services and technical assistance contributed to the cooperative education program by employers and others in the community.

11. Support by employer organizations: How employer organizations view cooperative education and the extent to which they help the program by recommending and recruiting people to serve on advisory committees, providing technical assistance, suggesting curricula, etc.

LEVEL V

12. Support by unions: How unions view cooperative education and the extent to which they help the program by recommending and recruiting people to serve on advisory committees, providing technical assistance, suggesting curricula, and encouraging placements in union shops.

Functional Area B: Goal Setting, Planning and Administering the Program

LEVEL I

13. Selecting and training teacher/coordinators: Identifying competencies needed to be effective teacher/coordinators and determining methods used to select potentially effective teacher/coordinators and to train them to realize their potential.

14. Program planning: Plans to develop, conduct and evaluate a cooperative education program including activities to identify needs and resources, match students with jobs, make work experience compatible with existing classes and schedules, and establish benchmarks to evaluate progress.

LEVEL II

15. Goals, policies and objectives: Written official statements by the responsible educational agencies that delineate what is to be achieved by cooperative education and how to go about achieving it.

16. Program administration: Program management including planning, organizing, evaluating, controlling, budgeting, supervising, communicating, and linking the program's activities to those of other systems.

17. Training agreement: A document signed by the teacher/coordinator, employer, and student defining the responsibilities of each, nature of work to be performed, time and hours of employment, and rate of pay for the work.

18. Resources for teacher/coordinators: The office space, equipment, supplies and travel allowance and other resources provided for teacher/coordinators to help them perform their jobs.

19. Criteria for selecting work stations: Requirements and guides established by the state department of education and local officials for selection of work stations and criteria used by teacher/coordinators.

LEVEL III

20. Labor market information: Information about jobs which are appropriate for students and are available in the community, the employers who have the jobs, and the skills and abilities students should have and may be expected to gain in each job.

X.* Citizen advisory board or steering committee: (A7)

21. Program evaluation: Activities to measure achievement of program goals, and the effectiveness of specific elements such as program administration, student selection, scheduling, related classroom instruction, work experience, forms and records, teacher/coordinators and public relations.

22. Follow up on program graduates: Feedback from program graduates and work sponsors to obtain information for evaluating and improving the program and to assist cooperative education graduates achieve career objectives.

LEVEL IV

X. Resources provided by government: (A9)

23. Manuals and guides for school personnel: Materials to instruct and assist teacher/coordinators, counselors, and administrators to carry out their roles effectively.

*Elements indicated by "X" are listed in two Functional Areas. The symbols in the parentheses following the element title identify the other Functional Area and the number of the element in the Area.

LEVEL V

24. Coordination with other school programs: The degree to which the cooperative education program is linked to other school activities and staff to integrate work experience with other school work and deal with individual student's school problems and program needs.

Functional Area C: Employer Lindages, Relations and Coopertion

LEVEL I

25. Recruiting employers: Identifying employers who can provide appropriate work experience for students and getting them to participate in accordance with a training agreement.

26. Dealing with employers' problems: The flexibility and ability to counsel students, provide educational support, change education programs, time schedules and training plans, and to provide assistance to solve problems at the work place.

27. Orienting employers and supervisors: Provide employers and work supervisors with information and answer their questions with respect to the objectives, procedures, and other elements of the program, motivate them to play the expected role of supervisor, and make effective use of the teacher/coordinator.

28. Evaluation of students' work performance by employer: The criteria and procedures for evaluating students' work performance and supervisors' use of the performance evaluation.

29. Improving the work site: The frequency and nature of regular visits teacher/coordinators make to each work station to determine adherence to the training agreement and training plan, orient students, evaluate students' progress, relate work experience and school instruction, develop the work station, resolve problems, and improve the program.

LEVEL II

30. Relating in-school and on-the-job learning: The process for meshing and structuring work experience and school learning to make these activities mutually supportive.

31. Jobs designed to meet developmental needs: School and employers' efforts to identity and structure jobs to match students and jobs and to maximize students' opportunities to become competent workers.

X. Training agreement:

32. Training work supervisors: Providing training assistance to employers to help insure that supervisor understand needs of young people and can provide effective supervision and training.

X. Support for program by employers' personnel: (A4)

33. Flexibility in adjusting work stations to students' needs: The degree to which employers are open to suggestions from the teacher/coordinator to change tasks and other work conditions to meet contract and training plan terms and the developmental needs of students.

X. Employer recognition: (A2)

34. Related class curriculum: The curriculum for the class conducted by the teacher/coordinator which serves to link school and work.

Level III

35. Participation in student occupational organizations: Participation by students, staff, and employers in student occupational organizations and how this is used to complement, supplement, strengthen, and enrich the program.

36. Employer participation in student selection: The role the employer plays in selecting a particular student for a specific work station.

37. Training plan: The individual training plan develop by the teacher/coordinator, employer and student which specifies the learning experiences to be provided on the job, the related classroom instruction and the progression and time frames for each.

38. Handling conflict and discipline at the work site: The structure, guidelines and process for handling conflict at the work site involving a student.

LEVEL IV

39. Students' participation in identifying work stations: The degree to which students are encouraged to seek and succeed in obtaining jobs which are appropriate cooperative education work stations.

LEVEL V

40. Manuals and guides for employers' personnel: Materials provided by the school system for participating employers which spell out program objectives, guidelines and procedures, and provide information to help employers' personnel carry out their roles.

Functional Area D: In-School Program Activities

41. Preparing student for work assignment: Instruction about the world of work to help the student understand and accept the roles of the cooperative education student and others in the work palce and the requirements of the work place including: punctuality, dependability, cooperation with other workers, productivity and supervision.

42. Matching students and jobs: The process for assigning students to jobs to provide them with appropriate learning experiences to mesh career objectives, school learning and work experience.

43. Use of work performance evaluation by the teacher/coordi-nator: Use of supervisors' evaluations to change in-school instruction and work assignments and to provide motivation, counseling and coaching for student and technical assistance for the employer.

LEVEL II

44. Programs for students with special needs*: Activities, classroom instruction, recruitment efforts, etc., for educationally disadvantaged students, handicapped students and others who would have greater difficulty in obtaining good job placements than other cooperative education students.

X. Relating in-school and on-the-job learning: (C30).

45. Role of the guidance counselor: Guidance and counseling services to help students in vocational and career decision making, and relationships between counselor and teacher/coordinator.

46. Selecting and assigning students: Criteria and procedures for selecting student participants and assigning them to specific work stations. These include: age, grade, competencies, career aspirations, work readiness, and developmental limitations.

* This element is covered in a separate manual.

X. Related class curriculum: (C34).

47. Students' orientation to cooperative education: School activities to explain and introduce cooperative education to students and to prepare them to make the most effective use of the opportunities presented. Includes discussion of training agreements and plans, relationship between education and work experience and between teacher/coordinator and supervisor, and education to meet task requirements.

LEVEL III

X. Training plan: (C37)

48. Students' participation in assignment: The ability of students to influence their assignments to work stations.

X. Participation in student occupational organizations: (C35).

X. Recruiting students: (A8).

LEVEL IV

X. Students' participation in identifying work stations: (C39).

Functional Area E: Follow-Up

49. Post graduation support: Planned activities to help program graduates to achieve career objectives including counseling, educational planning and job development and placement.

X. Follow up on program graduates: (B22).

X. Program evaluation: (B21).

APPENDIX C: Emphasis of Specific Key Elements in College Curriculums for Cooperative Vocational Education

KEY
A = Entire course devoted to this element
B = Element takes up a major portion of a course
C = Element is a sub-section of a course or is mentioned briefly
D = Element is the focus of a workshop instead of a course

Element Number	NCLC Key Elements	Number of Curriculums				Point Total*	Category**
		A	B	C	D		
1	Public Relations	2	9	5	2	42	I
2	Employer Recognition	1	3	4	x	18	II
3	Community Support for Programs	1	4	2	1	19	II
4	Support for Programs by Employers' Personnel	x	1	2	x	5	III
5	Status of Work Experience Program in the School System	x	3	6	x	15	II
6	Parents' Participation and Support	x	1	6	x	9	III
7	Citizen's Advisory or Steering Committee	x	8	12	1	36	I
8	Recruiting Students	x	3	9	1	18	II
9	Resources Provided by Government	x	x	x	x	0	IV
10	Resources Provided by Other Than Government Sources	x	3	x	x	9	III
11	Support by Employer Organizations	x	1	1	x	4	IV
12	Support by Unions	x	3	4	x	13	II
13	Selecting & Training Teacher/Coordinators	4	5	7	x	42	I
14	Program Planning	x	5	7	1	22	II
15	Goals, Policies and Objectives	x	4	5	x	17	II
16	Program Administration	3	10	6	1	51	I
17	Training Agreements	x	3	9	1	18	II
18	Resources for Teacher/Coordinators	x	5	8	1	23	II
19	Criteria for Selecting Work Stations (and Laws)	2	8	10	1	44	I
20	Labor Market Information	2	3	8	1	27	II

Comments

*For the purpose of quanitfying "emphasis" of a key element, a value of 5 is asigned to a course devoted primarily to a key element (A); a value of 3 is assigned where a key element is one of three or four major subject areas in a course (B); a value of 1 is assigned where a key element is a sub-section of a course or discussed only briefly (C).

**To facilitate comparisons, elements are assigned, based on point totals, to five categories:

I = Scores of 28 or more
II = Scores between 13 - 27
III = Scores between 5 - 12
IV = Scores between 2 - 4
V = Scores of 1 and below

These limits were established so that the Roman numerial in each category is roughly equal to the Roman numeral in NCLC category. See Appendix B.

APPENDIX C: Emphasis of Specific Key Elements in College Curriculums for Cooperative Vocational Education

KEY
A = Entire course devoted to this element
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C = Element is a sub-section of a course or is mentioned briefly
D = Element is the focus of a workshop instead of a course

Element Number	NCLC Key Elements	Number of Curriculums				Point Total*	Category**
		A	B	C	D		
21	Program Evaluation	1	7	9	x	35	I
22	Follow-up	x	2	1	x	7	III
23	Manuals and Guides for School Personnel	x	x	1	x	1	V
24	Coordination with Other School Programs	x	3	2	2	11	III
25	Recruiting Employers	4	5	9	1	44	I
26	Dealing with Employers' Problems	x	1	1	x	4	IV
27	Orienting Employers and Supervisors	x	2	6	x	12	III
28	Evaluation of Student's Work Performance by Employer	x	4	8	x	20	II
29	Improving the Work Site	2	2	10	1	26	II
30	Relating In-School & On-The-Job Learning	1	3	7	x	21	II
31	Jobs Designed to Meet Development Needs	x	x	1	x	1	V
32	Training Work Supervisors	1	1	8	x	16	II
33	Flexibility in Adjusting Work Stations to Students' Needs	x	x	2	x	2	IV
34	Related Class Curriculum	7	8	13	2	72	I
35	Participation in Student Occupational Organizat.	1	8	7	1	36	I
36	Employer Participation in Student Selection	x	x	2	x	2	II
37	Training Plan	x	6	11	2	29	I
38	Handling Conflict & Discipline at the Work Site	x	x	1	x	1	V
39	Students' Participation in Identifying Work Sites	x	x	x	x	0	V
40	Manuals & Guides for Employers' Personnel	1	x	x	x	5	III

Comments

*For the purpose of quanitfying "emphasis" of a key element, a value of 5 is asigned to a course devoted primarily to a key element (A); a value of 3 is assigned where a key element is one of three or four major subject areas in a course (B); a value of 1 is assigned where a key element is a sub-section of a course or discussed only briefly (C).

**To facilitate comparisons, elements are assigned, based on point totals, to five categories:

I = Scores of 28 or more

II = Scores between 13 - 27

III = Scores between 5 - 12

IV = Scores between 2 - 4

V = Scores of 1 and below

These limits were established so that the Roman numerial in each category is roughly equal to the Roman numeral in NCLC category. See Appendix B.

APPENDIX C: Emphasis of Specific Key Elements in College Curriculums for Cooperative Vocational Education

A = Entire course devoted to this element
B = Element takes up a major portion of a course
C = Element is a sub-section of a course or is mentioned briefly
D = Element is the focus of a workshop instead of a course

Element Number	NCLC Key Elements	Number of Curriculums				Point Total*	Category**	Comments
		A	B	C	D			
41	Preparing Students for Work Assignment	x	1	5	x	8	III	
42	Matching Students and Jobs	2	2	5	x	21	II	
43	Use of Work Performance Evaluation by Teacher/ Coordinator	1	1	5	x	13	II	
44	Programs for Students with Special Needs	x	2	1	x	7	III	
45	Role of Guidance Counselor	1	3	4	x	18	II	
46	Selecting and Assigning Students	2	7	14	1	45	I	
47	Students' Orientation to Cooperative Education	1	1	2	x	10	III	
48	Students' Participation in Assignment	x	x	1	x	1	V	
49	Post Graduation Support	x	x	3	x	3	IV	

*For the purpose of quanitfying "emphasis" of a key element, a value of 5 is asigned to a course devoted primarily to a key element (A); a value of 3 is assigned where a key element is one of three or four major subject areas in a course (B); a value of 1 is assigned where a key element is a sub-section of a course or discussed only briefly (C).

**To facilitate comparisons, elements are assigned, based on point totals, to five categories:

I = Scores of 28 or more

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These limits were established so that the Roman numerial in each category is roughly equal to the Roman numeral in NCLC category. See Appendix B.

APPENDIX D: Matrix of Importance/Emphasis

Numerals in the boxes indicate the number of times there was agreement between the NCLC study and college curriculums

Importance rating in NCLC study*	Emphasis in Curriculums**					
	I	II	III	IV	V	TOTAL
I	3	5	2	1	0	11
II	4	8	3	1	1	17
III	4	3	2	2	2	13
IV	0	0	1	1	3	5
V	0	1	2	0	0	3
TOTAL	11	17	10	5	6	49

*From Appendix B

**From Appendix C

APPENDIX E:

Elements for Training Teacher/Coordinators

(Note: See pages E8 and E9 for sources and meaning of symbols)

KEY ELEMENTS	A: NCLC Study	B: College Curriculum	C: T/C Task Analysis	D: College Workshops	E: State Manuals	COMMENTS
Public Relations	I	I	+	2	I	This element is rated as important by every data source. Good public relations is a necessary condition for successful cooperative education. It is far from a sufficient condition.
Employer Recognition	II	II	+	-	IV	Teacher/coordinators of exemplary programs consider these elements to be of great importance. In practice, they tend to be more competent in "employer recognition" than in obtaining "community support." Stronger state support and workshops are desirable.
Community Support for Programs	II	II	-	1	V	
Support for Program by Employers' Personnel	II	III	-	-	V	Although a necessary condition for effective learning experiences on the job, it is not emphasized by anyone.
Status of Work Experience Program in the School	III	II	-	-	V	The national focus on preparation for higher education has reduced academic support for cooperative education. This is an element which is key for linking classroom and work experience, but its importance is underrated.
Parents' Participation and Support	III	III	-	-	V	Some teacher/coordinators meet with partents. Most are satisfied with a parent's signature. A few try to develop parent support groups.
Citizen Advisory or Steering Committee	III	I	-	1	II	The respondents in the NCLC study -- practitioners -- underestimate the importance of strong advisory committees. They want committee members to be resources but not to participate fully. This is an error which training does not seem to eliminate.
Recruiting Students	III	II	-	1	II	Many teacher/coordinators do not develop enough jobs for the students who could benefit. Most tend to avoid strong recruitment efforts directed at students with special needs.
Resources Provided by Government	IV	V	-	1a	V	The competition for resources is strong. Cooperative education people tend to get the short end and they rarely fight back. Nothing in their training prepares them for this aspect of the job.

Elements for Training Teacher/Coordinators

(Note: See pages E8 and E9 for sources and meaning of symbols)

KEY ELEMENTS	A: NCLC Study	B: College Curriculum	C: T/C Task Analysis	D: College Workshops	E: State Manuals	COMMENTS
Resources Obtained From Other Than Government Sources	IV	III	-	1a	V	Many teacher/coordinators are able to obtain resources such as materials and lecturers from employers. Additional analysis and training could help them obtain more significant resource support.
Support by Employer Organizations	IV	IV	-	-	V	This is almost a sufficient condition for effective job development. However, no support or training is provided and teacher/coordinators do not recognize its importance.
Support by Unions	V	II	-	-	V	Although part of many college courses, only one teacher/coordinator of those we interviewed thought this worth the energy. Unions are seen as more interested in adult employment and in limiting labor supply than in helping youth.
Selecting and Training Teacher/Coordinators	I	I	-	-	III	This is possibly the most important key element. Although this is recognized, both preparatory and continuing education are inadequate. Selection seems to be rarely based on ability and will to do the job needed.
Program Planning	I	II	-	1	II	Our study indicates that plans are limited to meeting reporting requirements and doing mandated procedures rather than meeting placement objectives (number, population, etc.) competency standards, and post-graduation employment.
Goals, Policies and Objectives	II	II	-	-	II	Local programs usually adopt state goals and policies but these are only loosely linked to operating objectives; neither courses nor manuals seem to provide the necessary instruction for teacher/coordinators.
Program Administration	II	I	+	1	I	Important by every measure. However, operationally, seems limited to making reports and completing forms. Teacher/coordinators have a very narrow view of "administration."

Training Agreement	II	II	-	1	II	This is treated as a routine requirement by many teacher/coordinators rather than as an important administrative and training tool.
Resources for Teacher/Coordinators	II	II	+	1a	II	There doesn't seem to be any reliable, valid study of the resources needed by teacher/coordinators for an effective program. The important resources, such as time, tend to be ignored in favor of telephones, etc.
Criteria for Selecting Work Stations	II	I	-	1	II	Important by every measure. Since job development preceeds student placement, teacher/coordinators are satisfied with work stations which meet the minimum state requirements for safety, etc. More effective training is needed.
Labor Market Information	III	II	-	1	V	Most teacher/coordinators are happy with knowledge of some job sources and an occasional random search. Periodic workshops in identifying and using labor market information is desirable.
Program Evaluation	III	I	-	-	I	It is emphasized by colleges and in state manuals. The data tend to be unreliable and the results tend not to be useful at the local level to improve programs. The emphasis should be directed toward program improvement.
Follow-Up on Program Graduates	III	III	-	-	II	A few teacher/coordinators and district supervisors gather data routinely. There is little evidence that the data are used to improve programs. Some results are used in public relations.
Manuals and Guides for School Personnel	IV	IV	-	-	I	This is seen as a state function and is accepted by most states. However, most manuals and guides have limited value as the emphasis is on requirements and forms. Further, without hands-on training, there is little learning.
Coordination With Other School Programs	IV	III	-	1	V	The failure to recognize the importance of this element may be the basis for cooperatiave education's low status in school systems. In particular, the value of coordinating special education and cooperative education is overlooked.

Elements for Training Teacher/Coordinators

(Note: See pages E8 and E9 for sources and meaning of symbols)

KEY ELEMENTS	A: NCLC Study	B: College Curriculum	C: T/C Task Analysis	D: College Workshops	E: State Manuals	COMMENTS
Recuriting Employers	I	I	+	1	V	Recognized as important. A state consortium would help get this accepted, in part, as a state responsibility. Training teacher/coordinators can help but is not the total solution.
Dealing with Employers' Problems	I	IV	+	-	V	A crucial area which teacher/coordinators recognize as important but in which they receive no training and no help.
Orienting Employers and Supervisors	I	III	-	-	V	An important area in which teacher/coordinators receive little training and no help. Most employers that we interviewed felt that this was a shortcoming.
Evaluation of Students' Work Performance by Employer	I	II	-	-	IV	This is an element in every program. As supervisors are not skilled evaluators, the results are less than satisfactory. Few teacher/coordinators feel qualified to help the supervisors.
Improving the Work Site	I	II	+	-	IV	This is recognized to be of crucial importance. But when sites are difficult to obtain, supervisors not prepared, and litle time available, teacher/coordinators hesitate to seek change. There is little more than review of attendance, safety, etc.
Relating In-School and On-The-Job Learning	II	II	+	-	II	This requires advanced training. It is what distinguishes cooperative education from work-study. It is poorly implemented with respect to integrating the two types of learning and providing focused experience and classroom remediation.
Jobs Designed to Meet Developmental Needs	II	IV	-	-	V	Important. But, there is neither training nor other help for teacher/coordinators. While teacher/coordinators recognize the importance, none whom we met felt qualified to even make suggestions.

Training Work Supervisors	II	II	-	-	V	Considered important and included in some college courses. However, there is virtually no training other than in filling out forms and training agreements. There should be an intensive, continuing effort to prepare teacher/coordinators.
Flexibility in Adjusting Work Stations to Students' Needs	II	IV	-	-	V	Important. There is neither training nor other help for teacher/coordinators to motivate and assist employers.
Related Class Curriculum	II	I	+	2	II	Important by every measure. This seems to be the major content course in every college. Unfortunately, it seems to be "off the shelf" rather than individualized.
Participation in Student Occupational Organizations	III	I	-	1	II	Emphasis in college courses and in state manuals. It is considered less important by teacher/coordinators. This is an area which should be reviewed.
Employer Participation in Student Selection	III	IV	-	-	V	Most programs give an employer a choice of two or three well-qualified students. Consequently, the teacher/coordinators see little need for more employer participation. If there is more emphasis on placing students with special needs, there would be greater need for more employer participation.
Training Plan	III	I	-	2	II	Important. However, we saw few real training plans. Teacher/coordinators may be unable to obtain employers' cooperation. This is an area which needs more emphasis.
Handling Conflict and Discipline at the Work Site	III	V	-	-	V	This is not a great training need only because well socialized students are placed and the universal solution, when there is conflict, is to remove the student. Effective training might lead to acceptance of greater risk in placement.
Students' Participation in Identifying Work Stations	IV	V	-	-	V	This is frowned upon except where cooperative education verges on work study. Could be used more, even for cooperative education, if students were trained to look for appropriate jobs and the jobs developed were screened.
Manuals and Guides for Employers' Personnel	V	III	-	-	V	Nonexistent. NCLC has prepared a "Hip Pocket Manual for Supervisors of Young Workers," as well as independent study modules. Additional material should be prepared so the teacher/coordinators could reenforce during their periodic visits.

Elements for Training Teacher/Coordinators

(Note: See pages E8 and E9 for sources and meaning of symbols)

KEY ELEMENTS	A: NCLC Study	B: College Curriculum	C: T/C Task Analysis	D: College Workshops	E: State Manuals	COMMENTS
Preparing Student for Work Assignment	I	III	-	-	V	None seem to provide help for teacher/coordinators in preparing students for specific assignments. Teacher/coordinators need help from occupational teachers to meet students' needs.
Matching Students and Jobs	I	II	-	-	V	The general tendency is to provide employers with overqualified students. There seems to be litle in curriculums to negate this approach, to motivate or to provide instruction in challenging placements for students with special needs.
Use of Work Performance Evaluation by Teacher/Coordinator	I	II	-	-	V	There is little evidence that the instruction or practice in use of performance evaluation is for more than class grades and sometimes an attempt to motivate students to "do better." There seems to be little effort to use the feedback to change classroom instruction.
Programs for Students With Special Needs	II	III	-	-	V	A very important area in which teacher/coordinators receive little training or help. Various colleges in the Calfiornia system are training special education teachers to handle cooperative education for this population.
Role of the Guidance Counselor	II	II	+b	-	V	Guidance counselors tend to provide litle assistance to students who do not go on to higher education. Teacher/coordinators seem to be poorly prepared to fill the gap. This is an area of concern.
Selecting and Assigning Students	II	II	+	I	I	Important by every measure. It is not clear what the colleges advocate. In practice, teacher/coordinators tend to "cream" and give the poorest placements to students who intend to go to work after high school.
Students' Orientation to Cooperative Education	II	III	-	-	IV	Not emphasized in college curriculums and treated routinely in practice. This element should receive greater emphasis to encourage increased participation in monitoring, using feedback and linking school and work.

Students' Participation in Assignment	III	III	-	-	V	Not emphasized in college curriculums and ignored in practice. Teacher/coordinators could use this element as a useful learning experience for students.
Post-Graduation Support	III	IV	-	-	V	There seems to be little instruction to guide teacher/coordinators. Support is provided by a few outstanding programs and, in some places, for students with special needs. Teacher/coordinators need instruction in use of public and community resources.
Roles and Tasks of Teacher/Coordinators	-	-	-	-	III	While not a key element, it is included in the set of key elements and is discussed in college courses in a general way, and, of course, is the subject of the various task analyses.
State Rules and Regulations	-	-	-	-	III	While state manuals are specific, this area is covered in a general way in both NCLC key elements and college curriculums.
Benefits for Students, Employers, et al.	-	-	-	-	III	While not indicated as a key element or a curriculum subject, it is usually included under some other heading.
Counseling Students by Teacher/Coordinators	-	III	+b	-	V	Important element, not emphasized in curriculums and overlooked in the NCLC study. Revisions of NCLC manuals will include this element.

Notes for Appendix E

A: Level of importance indicated by practitioners and administrators in NCLC study. "I" denotes crucial and necessary. "V" denotes desirabel but of marginal value. "II," "III" and "IV" denote values in between.

B: Emphasis in college curriculums. "I" denotes virtually universal major emphasis. "II" denotes major emphasis in some curricula and included in most. "III" denotes no major emphasis but included in some curricula. "IV" denotes included in a few. "V" denotes totally ignored.

C: Teacher/coordinator tasks most often described in the literature and other studies of cooperative work experience education. In addition to review of general texts, the following studies wre consulted:

J. T. Humbert and C. A. Woloszyk, Cooperative Education, Columbus, Ohio: The National Center for Research in Vocational Education, 1983.

"Essential Duties and Task Performed by Cooperative Education Coordinators," Workplace Education, May-June 1983.

G. M. Lloyd, An Assessment of Cooperative Vocational Education Programs Since the Educational Amendments of 1976, Columbus, Ohio: The National Center for Research in Vocational Education, n.d.

"Cooperative Education: The Heart of Career Training," Workplace Education, November-December 1982.

J. Walsh and V. J. Breglio, An Assessment of School Supervised Work Education Programs, Part II: Urban Cooperative Education Programs and Follow-Up Study, San Francisco: Olympus Research Centers, 1976.

M. Mitchell and J. E. Christiansen, "What Do Coordinators Do?" Cooperative Education Quarterly, February 1979.

D. The number of college-sponsored workshops with focus on a specific key element reported by schools of education that replied to our request for information.

E. Key elements covered in eleven state educational and one Canadian Provincial manual for administrators and teacher/coordinators. "I" denotes: included in eight or more manuals. "II" denotes: included in five, six, or seven manuals. "IV" deontes: included in one manual. "V" denotes: not included in any manual. Manuals used were from Arizona, Florida, Kansas, Kentucky, Illinois, Michigan, Nebraska, New Jersey, Ohio, Texas, Virginia and Ottawa.

a. Three elements in same workshop. Elements 9, 10 and 18.

b. It is frequently not clear whether counseling is conducted by the teacher/coordinator or by the guidance counselor in conjunction with the teacher/coordinator. Further, types of counseling, e.g. vocational, career, behavior are intermingled.